

# Using Business Space to manage business process applications

Easily work on business processes using Business Space powered by WebSphere V7

Skill Level: Introductory

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24 Mar 2010

This tutorial will provide step-by-step instructions to help you develop a business process application and then use Business Space powered by WebSphere® V7 to frontend this application in managing and executing the process. The demo application will show a scenario involving a human workflow. The tutorial will help you develop Service Component Architecture (SCA) artifacts in WebSphere Integration Developer V7.0 and Business Space V7.0. The latter part of the tutorial will discuss creating a custom business space to implement the workflow.

## Section 1. Introduction

Business Space powered by WebSphere (hereafter called Business Space) empowers business users with a single unified user interface that collaborates between the products in the WebSphere Business Process Management portfolio. Business Spaces are Web 2.0 based drag and drop user interface and enables users to create mashups of widgets spread across several spaces or pages within a single space.

To learn more about Business Space, see the [Business Space overview](#) topic in the Information Center.

## In this tutorial

In this tutorial, the use of Business Space as a front end for a business process application is illustrated. A custom Business Space is created and customized to interact with the WebSphere Process Server runtime to manipulate and work on the business process.

The tutorial illustrates Business Space functionality through a fictitious company called the “The dW Resort”, which has a company policy of allowing discounted rates to returning customers who have had previous booking history of twenty or more. For customers with lower than twenty previous bookings, the Resort management will determine the applicability of the discounted rates.

Business rules are used for the automatic application of discounted rates for eligible customers and a human task will implement the process of manually checking the eligibility of the discounted rates.

The tutorial is divided into the following sections:

- [Developing the business process application](#)
- [Developing the Business Space](#)
- [Running the application from Business Space](#)

## Prerequisites

- Previous development experience in WebSphere Integration Developer.
- Knowledge of basic administration of WebSphere Process Server.

## System requirements

- Microsoft® Windows® XP Professional Desktop with at least 2 GB of RAM
- IBM® WebSphere Integration Developer V7.0.0.1 with WebSphere Process Server Test Environment V7.0.0.1

## Duration

2 hours

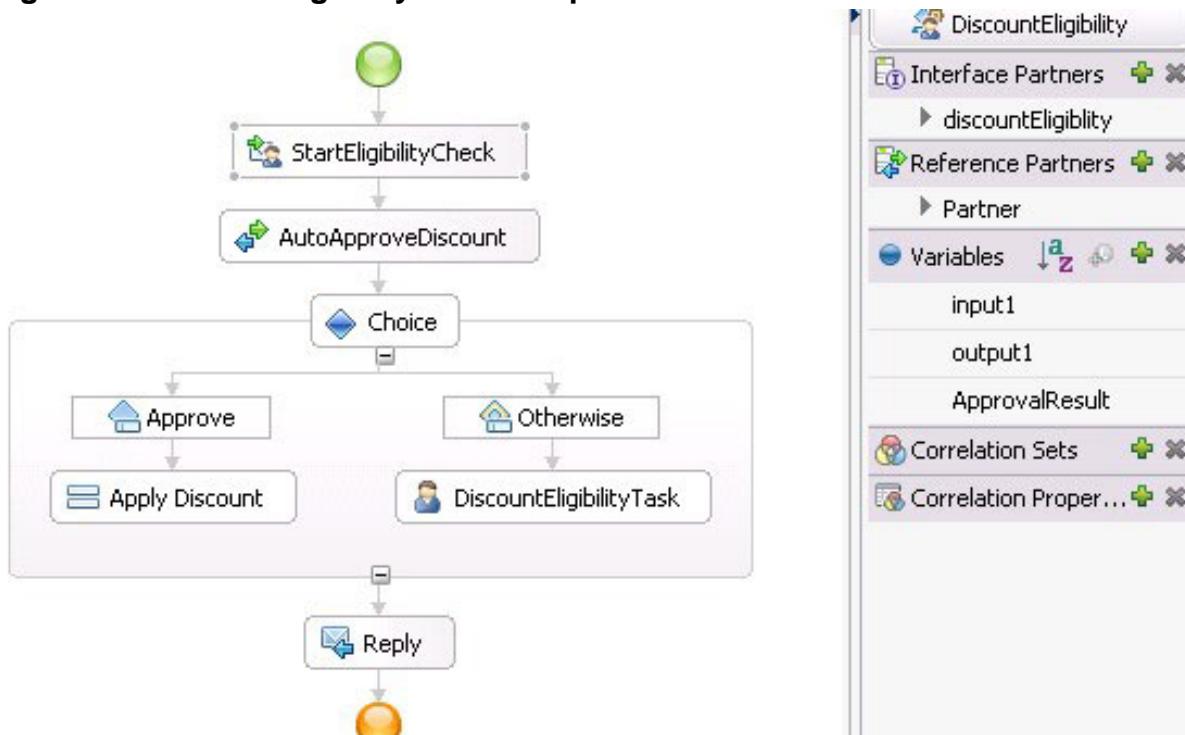
## Section 2. Developing the business process application

In this section, you will develop the business process application to be used with Business Space. Open the **Business Integration** perspective, create a new project, and name it `dWResortVer1`. A sample Project Interchange file, [dWResortVer1.zip](#), is provided for you to download with this tutorial.

You will develop a business process called *DiscountEligibility*, which will have an invoke activity called *AutoApproveDiscount*. This activity will invoke a business rule to validate whether the customer has done previous bookings of more than twenty to automatically apply the discounted rates while booking. Otherwise, a human task called *DiscountEligibilityTask* will be executed, where the user has to manually approve or reject the discounted rates.

The business rule *discountRule* will apply the logic of approving the discounted rate automatically if the previous booking is greater than twenty. The completed process will appear similar to Figure 1.

**Figure 1. DiscountEligibility business process**



In the following sections, you will learn the development steps.

## Creating the business process

1. Create a business object called `BillingInfo` with fields as shown in Figure 2.

**Figure 2. BillingInfo business object**

The screenshot shows the 'Business object' configuration screen. The 'Definition' tab is active, displaying a list of fields for the 'BillingInfo' object. The fields are:

Field	Type
LastName	string
FirstName	string
Address	string
ContactNo	string
Email	string
PreviousBookings	int

2. Save the business object.
3. Create an Interface called `discountEligibility`, which will have a request-response operation as shown in Figure 3.

**Figure 3. discountEligibility interface**

The screenshot shows the 'Interface' tab with the following configuration:

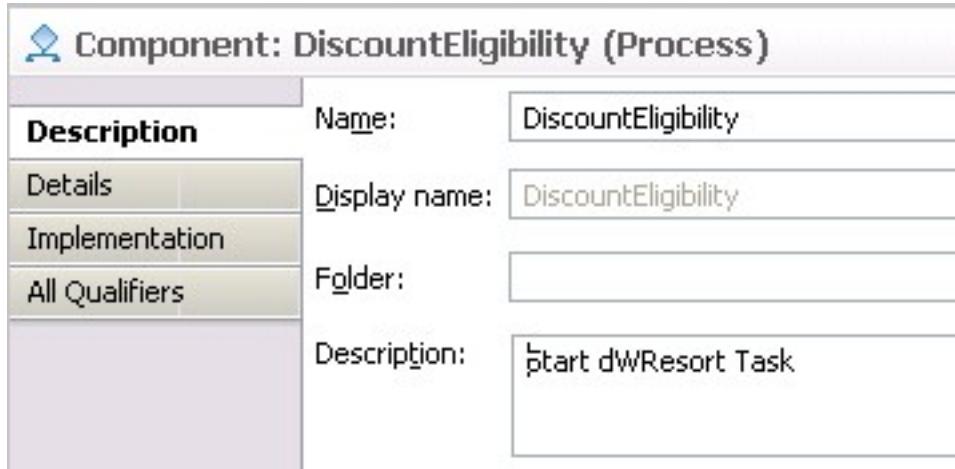
Name	discountEligibility	<a href="#">Refactor name</a>
Namespace	http://dWResortVer1/discountEligibility	<a href="#">Refactor namespace</a>
Binding Style	document literal wrapped	<a href="#">Change binding style to document literal</a>

The 'Operations' tab shows an operation named 'discountCheck' with the following parameters:

	Name	Type
Inputs	input1	BillingInfo
Outputs	output1	boolean

4. Open the **Assembly Diagram**.
5. Drag a **Process** component from the **Component** panel and drop it in the **Assembly Diagram**.
6. Change the **Name** and **Display Name** of the component to **DiscountEligibility** in the **Properties** tab. Add **Description** as **Start dWResort Task** as shown in Figure 4.

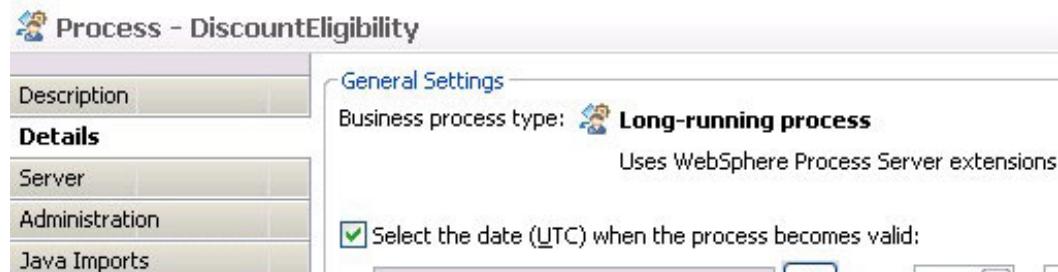
**Figure 4. DiscountEligibility process**



7. Add the **discountEligibility** interface to the **DiscountEligibility** component.
8. Create an implementation of **DiscountEligibility**.
9. Ensure that the business process type is a **Long-running process** as

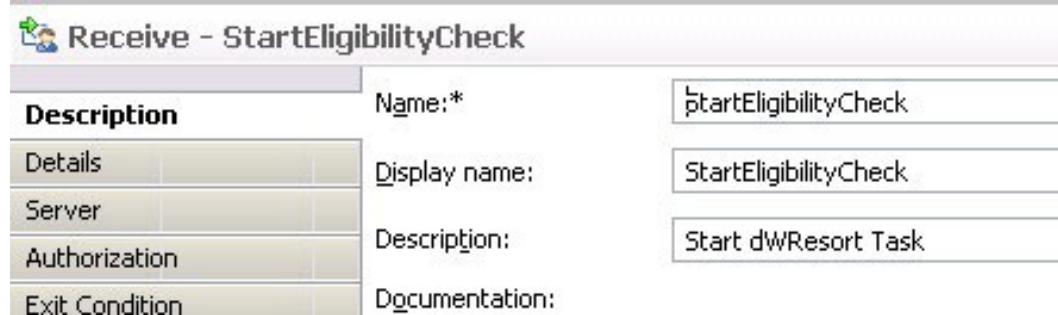
shown in Figure 5.

### Figure 5. DiscountEligibility process is long running



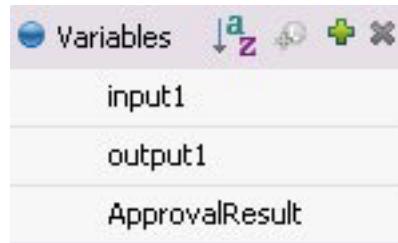
10. Change the **Name** and **Display Name** of the **Receive** activity to **StartEligibilityCheck** as shown in Figure 6.

### Figure 6. Rename Receive activity to StartEligibilityCheck



11. Add a new variable, **ApprovalResult**. Leave the data type to default as shown in Figure 7.

### Figure 7. Add a new variable - ApprovalResult



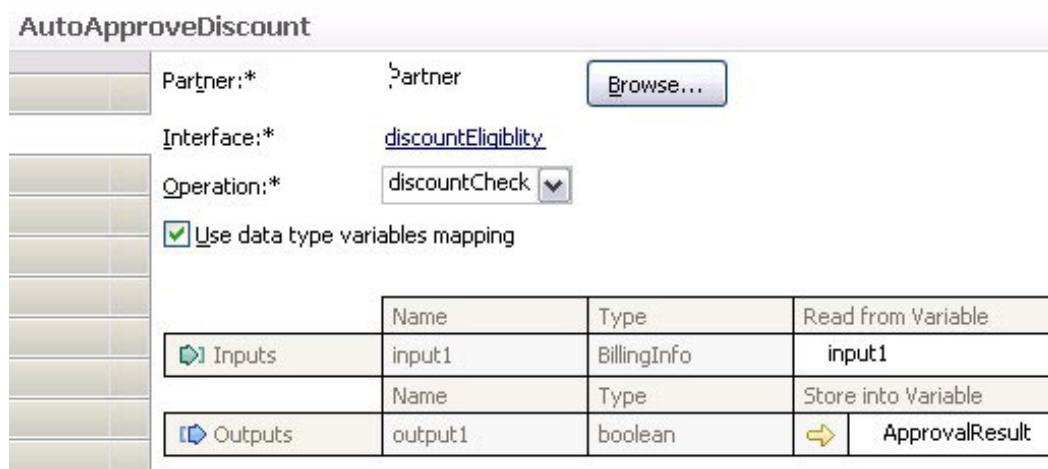
12. Add an **Invoke** activity from the **Basic Actions** panel and place it between the **StartEligibilityCheck** and **Reply** activities.
13. Change the **Name** and **Display Name** to **AutoApproveDiscount** as shown in Figure 8.

### Figure 8. Rename invoke activity to AutoApproveDiscount



14. Go to the **Details** tab of the component's properties and add **discountEligibility** to the interface. Set the **Inputs** and **Outputs** parameters as shown in Figure 9.

**Figure 9. Add interface to AutoApproveDiscount**



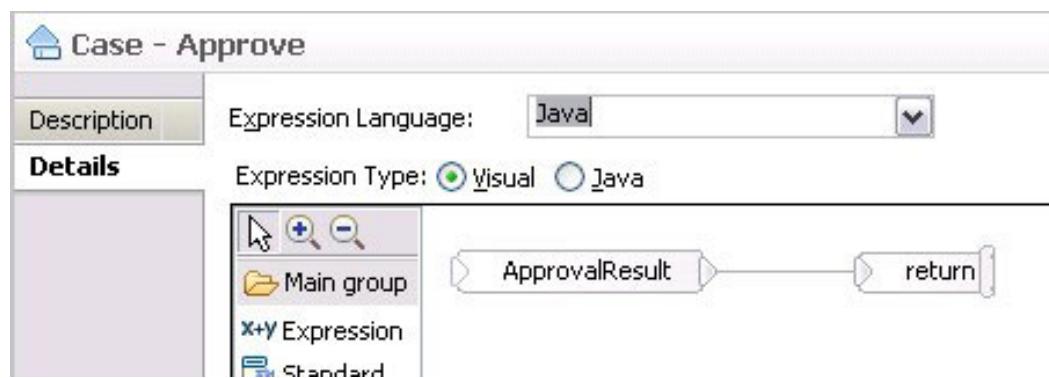
15. Go back to the **Assembly Diagram**. Add a **Choice** component from the **Structures** panel after the AutoApproveDiscount activity.
16. Click the **Case – Yes** element and change the **Display name** to **Approve** in the **Properties** tab as shown in Figure 10.

**Figure 10. Choice - Case Approve**



17. In the **Details** tab, choose **Java** as the Expression Language, and **Expression Type** as **Visual**. Add the expression as shown in Figure 11.

**Figure 11. Choice – Case Approve expression**



18. Add an **Assign** component from the **Basic Actions** panel below Approve and modify the **Details** tab as shown in Figure 12.

**Figure 12. Add an Assign to Case Approve**

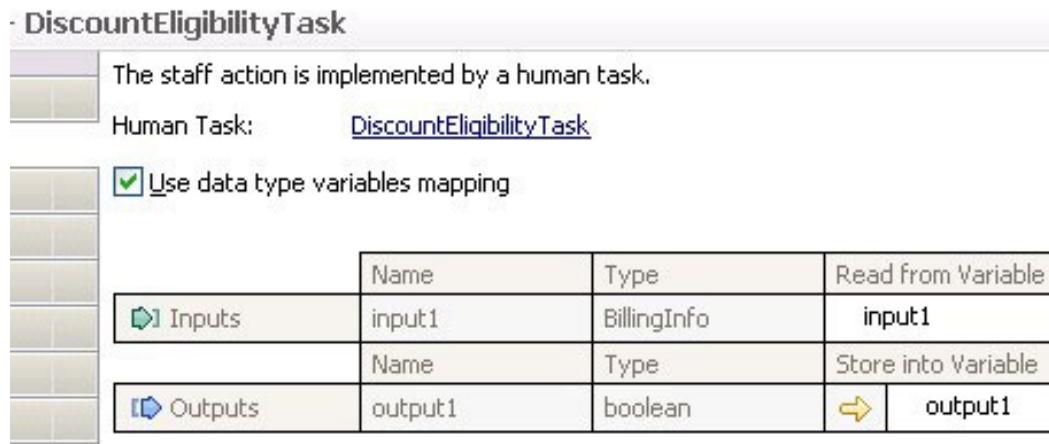


19. Right click the **Choice** activity and add an **Otherwise** element.

20. Add a **Human Task** from the **Human Workflow** panel to the **Otherwise** element.

21. Add **discountEligibility** to the interface of the human task and set the **Inputs** and **Outputs** parameter as shown in Figure 13.

**Figure 13. Add an interface to the human task**



22. Change the “Name” and “Display Name” fields of the Human Task to **DiscountEligibilityTask** as shown in Figure 14.

**Figure 14. Rename the Human Task to DiscountEligibilityTask**

Human Task - DiscountEligibilityTask	
Description	Name:*
Details	DiscountEligibilityTask
Server	DiscountEligibilityTask
Exit Condition	Description:

23. Open the **DiscountEligibilityTask** in the Human Task editor.

24. Go to the **Details** tab and check **Give owner read access to surrounding process context data** so that the owner of the task can use the Human Workflow Diagram widget and see the business process structure and status in the Business Space console, as shown in Figure 15.

**Figure 15. Edit the DiscountEligibilityTask details**

- DiscountEligibilityTask	
Substitution policy:	No substitution
Date (UTC) when task becomes valid:	None
<input type="checkbox"/> Business-relevant <input type="checkbox"/> Task can be claimed when it is suspended <input checked="" type="checkbox"/> Enable follow-on task creation <input checked="" type="checkbox"/> Give owner read access to surrounding process context data	

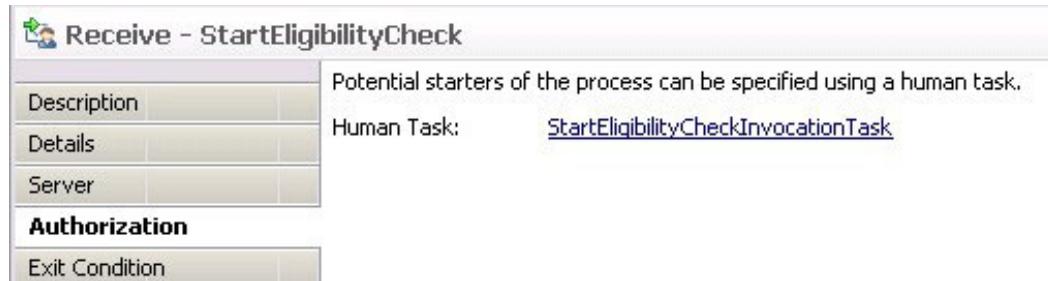
25. Use the defaults for the other values. Save the changes and close the Human Task editor.

26. Go back to the **DiscountEligibility** process and click **StartEligibilityCheck** to display the activity properties.

27. Go the **Authorization** tab and click **New** to create a new invocation task. An invocation task is required to start the business process from the Business Space. The Business Space will display **StartEligibilityCheck**

and its description in the list of available tasks as shown in Figure 16.

**Figure 16. Edit authorization for StartEligibilityCheck**



28. Save the business process and the **Assembly Diagram**.

## Creating the business rule

1. Navigate to the **Assembly Diagram**. Drag a **Rule Group** component from the **Components** panel and drop it on the **Assembly Diagram**.
2. Enter `AutoDiscountApproval` as the name of the Rule Group as shown in Figure 17.

**Figure 17. AutoDiscountApproval rule group**



3. Double-click the **AutoDiscountApproval** component to generate an implementation for the rule group. The rule group editor opens up.
4. Click **Enter Rule Logic** and select **New rule set** as shown in Figure 18.

**Figure 18. AutoDiscountApproval rule group editor**

The screenshot shows the Rule set editor interface. At the top, there are two sections: 'Scheduled Rule Logic' and 'Available Rule Logic'. The 'Scheduled Rule Logic' section contains a table with columns 'Start Date', 'End Date', and 'Rule Logic'. The 'Available Rule Logic' section contains a table with a single row labeled 'discountRule'.

Start Date	End Date	Rule Logic

discountRule
--------------

5. Navigate to the Rule set editor.
6. Enter `discountRule` for the Name of the business rule as shown in Figure 19.

**Figure 19. Rule set editor**

The screenshot shows the 'Rule Set' configuration screen for 'discountRule'. It displays the 'Rule Set' section with the name 'discountRule' and the 'Interface' section. The 'Interface' section contains four entries: 'Interface' with value 'discountEligibility', 'Operation' with value 'discountCheck', 'Input' with value 'input1' and type 'BillingInfo', and 'Output' with value 'output1' and type 'boolean'.

Interface	discountEligibility	
Operation	discountCheck	
Input	input1	BillingInfo
Output	output1	boolean

7. Add an **In-Then** template and name it RuleTemplate.
8. Refer to Figure 20 to complete the template.

**Figure 20. Creating the RuleTemplate**

Templates				
Name	RuleTemplate			
Presentation	If previous bookings more than {previousBookings} approve discounted rates automatically			
Description				
Parameters	Name  Type Constraint Description			
	previousBookings int None			
If	input1.PreviousBookings > previousBookings			
Then	output1 = true			

9. Add an **Action** rule and name it Rule.
10. Refer to Figure 21 to complete the rule.

**Figure 21. Creating the action Rule**

Rules	
Name	Rule
Presentation	
Action	output1 = false

11. Add a **Template** rule and name it ApprovalRule.
12. Refer to Figure 22 to complete ApprovalRule.

**Figure 22. Creating the template ApprovalRule**

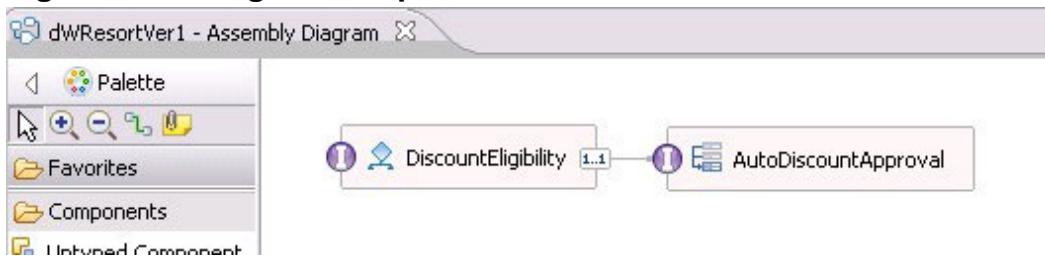
Name	ApprovalRule
Template	RuleTemplate
Presentation	If previous bookings more than [20] approve discounted rates automatically

13. Save the Rule editor and rule group.

## Complete the assembly diagram

1. Wire the **DiscountEligibility** component to the **AutoDiscountApproval** component as shown in Figure 23.

**Figure 23. Wiring the components**

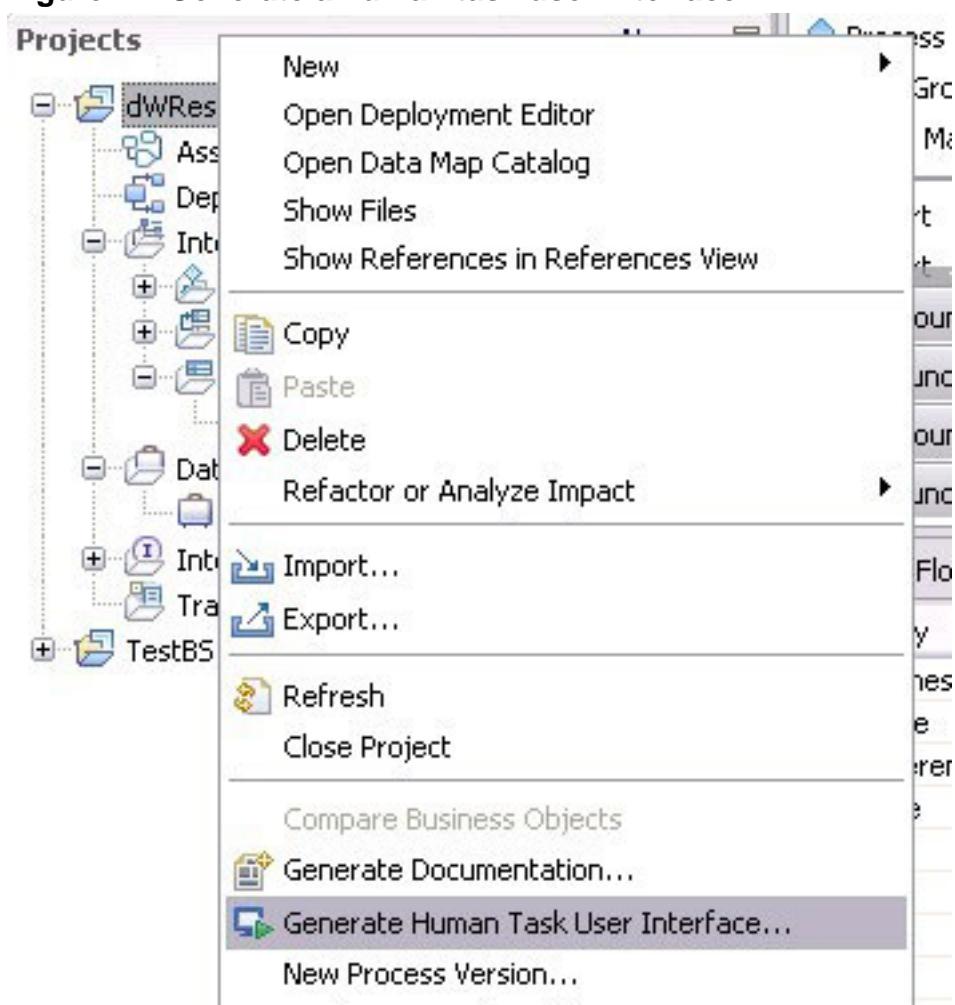


2. Click **OK** if you are asked to create a matching interface on the target component.
3. Save the **Assembly Diagram** and ensure that there are no build errors.

# Generate human task user interfaces for Business Space

1. You will use Dojo/HTML pages to display human task forms. To create the forms, right-click the module and choose **Generate Human Task User Interface** as shown in Figure 24.

**Figure 24. Generate a human task user interface**



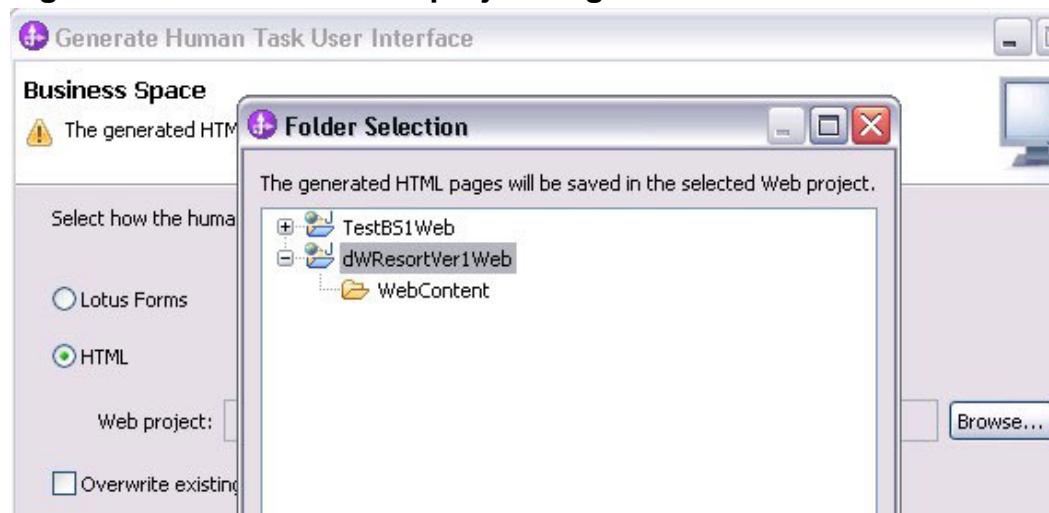
2. In the pop-up panel, the generator type is **HTML-Dojo pages or Lotus Forms for Business Space** as shown in Figure 25.

## Figure 25. Select a generator type



3. Ensure that all the relevant human tasks are selected and click **Next**.
4. Select **HTML** for the human task display and click the **Browse** button.
5. Choose **dWResortVer1Web/WebContent** and click **OK** as shown in Figure 26.

**Figure 26. Choose the Web project to generate user interfaces**



6. A message pops up indicating that the interface has been generated. Click **OK**.
7. Open the Web perspective in WebSphere Integration Developer and navigate to **dWResortVer1Web/WebContent**.
8. You will notice that the HTML pages are created for the human task and the invoke activities.

9. You can edit the HTML pages to modify the forms as shown in Figure 27 and Figure 28. However, this is *not* discussed in the tutorial.

**Figure 27. Modified form for StartEligibilityCheck.html**

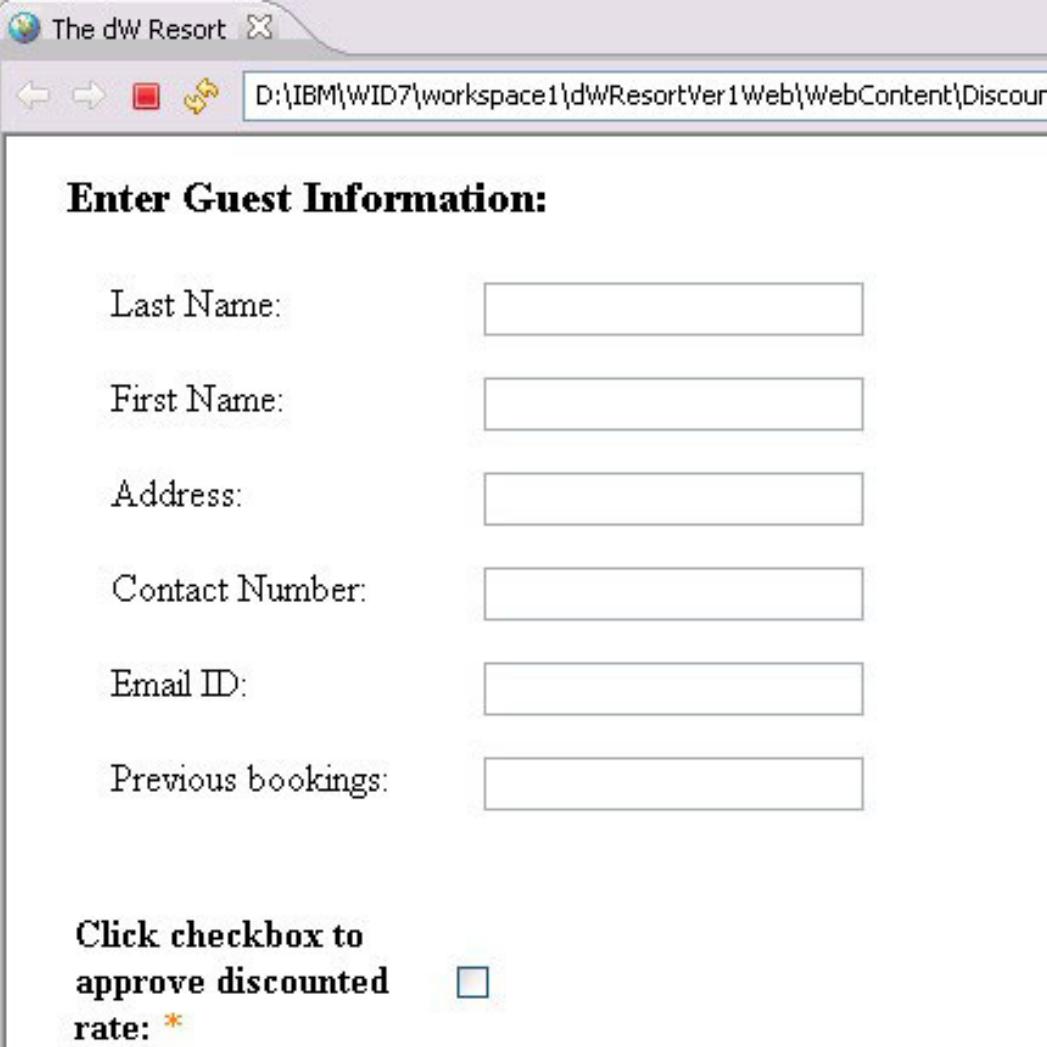
The screenshot shows a web browser window titled "The dW Resort". The address bar displays the path: D:\IBM\WID7\workspace1\dWResortVer1Web\WebContent\StartEligibilityCheck.html. The main content area is titled "Invoice Details" and contains six text input fields for "Last Name", "First Name", "Address", "Contact Number", "Email ID", and "Previous Bookings". Below this section is a heading "Discount Approval Details" followed by a label "Discount Approved" with a required asterisk (\*) and an empty checkbox.

Last Name	<input type="text"/>
First Name	<input type="text"/>
Address	<input type="text"/>
Contact Number	<input type="text"/>
Email ID	<input type="text"/>
Previous Bookings	<input type="text"/>

**Discount Approval Details**

Discount Approved \*

**Figure 28. Modified form for StartEligibilityCheck.html**



The dW Resort

D:\IBM\WID7\workspace1\dWResortVer1Web\WebContent\Discour

**Enter Guest Information:**

Last Name:

First Name:

Address:

Contact Number:

Email ID:

Previous bookings:

**Click checkbox to approve discounted rate: \***

10. Save the workspace.

## Deploy the module

1. Start WebSphere Process Server Test Environment, if not already started.
2. Deploy the **dWResortVer1** module and ensure that there are no errors during deployment.

## Section 3. Developing the Business Space

In this section, you will use the Business Space console to create a new custom Business Space that you can use to interact with the business process application created in the previous steps. Using the space, a new task instance of *DiscountEligibility* is created and the forms are presented to Business Space users to enter guest information and previous booking details. The task instance will be available to be accepted and worked upon if the previous bookings are less than 20. The task will be completed automatically if the bookings are more than 20.

WebSphere Process Server V7 provides a built-in template called *Advanced Managing of Human tasks and Workflow*.

However, you will create a blank template and pick and choose some of the specific widgets required to manage business process and human tasks. You will also make use of some generic widgets as well as the built-in business rules widget.

### Prerequisite tasks

There is a prerequisite task for the Document viewer widget. You are using a custom Microsoft Word document in the tutorial, and therefore, this document has to be available to the runtime before you use Business Space.

1. Create a new Microsoft Word document and name it *DiscountGuidelines.doc*. You can optionally add some text on the first page.
2. Save or copy the file over to:

```
[WID_Test_Environment_Root]\runtimes\bi_v7\profiles\[profileName]\\
installedApps\[cellName]\BSpaceEAR_<nodeName>_<serverName>.ear\
BSpace.war\iWidget\widgets\htmlFragment\sampleDocs
```

in the WebSphere Process Server V7 profile root directory in the Test Environment.

3. Upon the next restart, the file will be available for Business Space.

### Create the business space

1. Access the Business Space console. It is accessible at `http://<host>:<port>/BusinessSpace`, where `host` is the host name of the machine where Test Server is running, and `port` is the HTTP port where the Test Server is listening on.
2. The default Business Space V7 login screen appears. You have the flexibility to customize the login screen, which is described in [Customizing the login page](#). The customized screen looks similar to Figure 29.

**Figure 29. Customized Business Space login screen**



3. Login to the Business Space with the username of `admin` and password of `admin`.
4. You will be presented with the **Getting Started** screen as shown in Figure 30.

**Figure 30. Getting Started page**



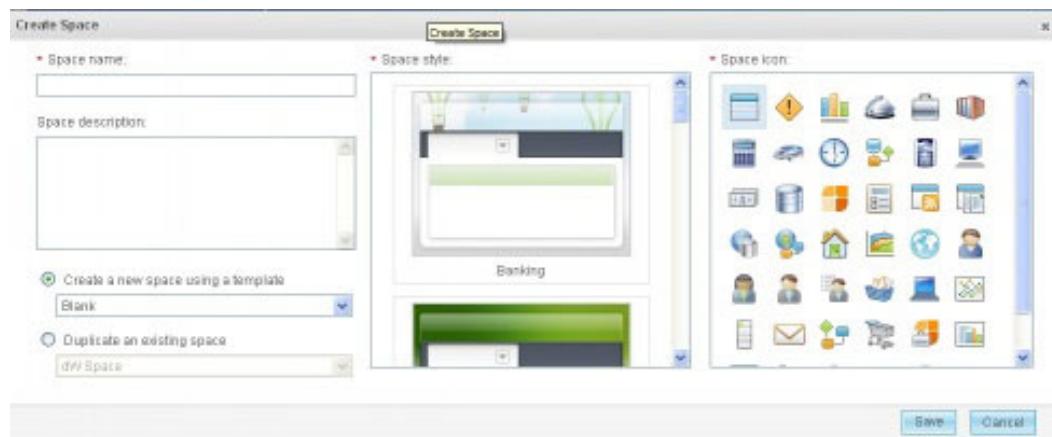
5. Choose **Actions > Create Space** from the menu bar as shown in Figure 31.

**Figure 31. Create the Space option**



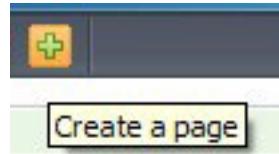
6. You will be presented with the **Create Space** panel as shown in Figure 32.

**Figure 32. Create the Space panel**



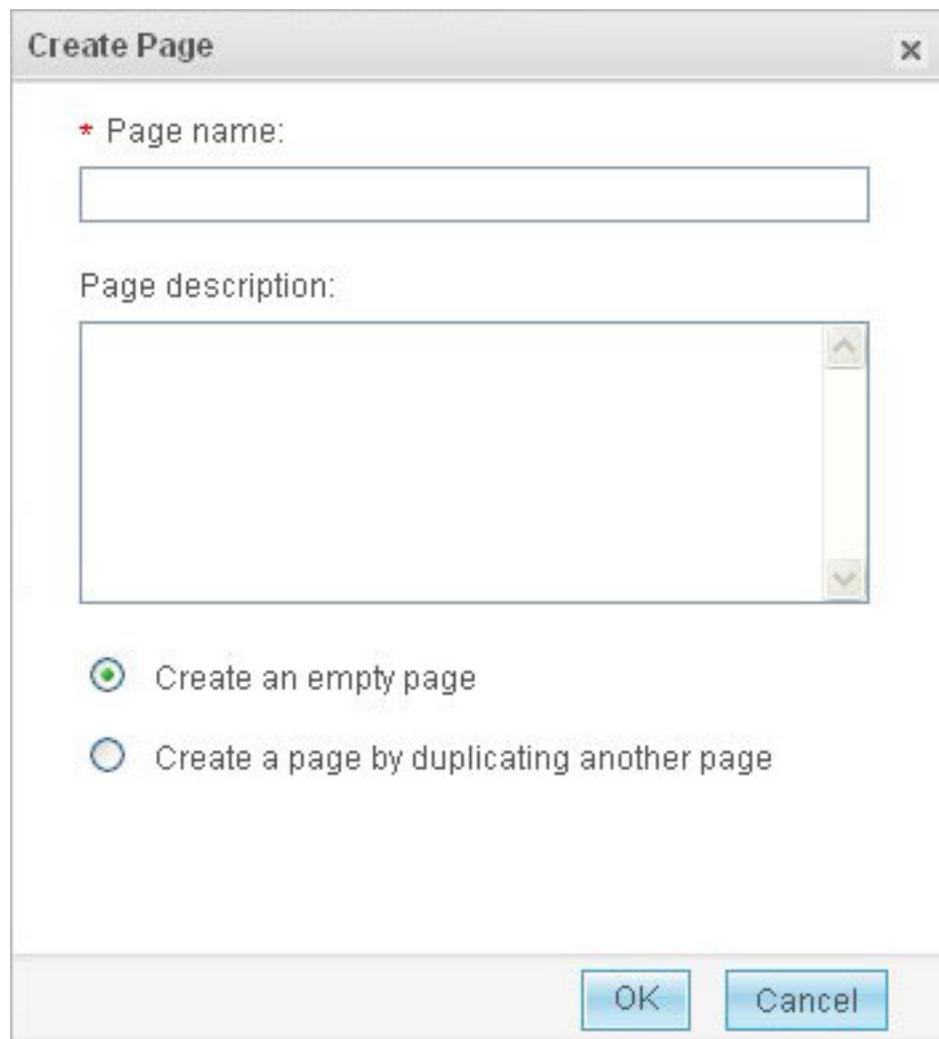
7. Complete the **Create Space** panel:
  - a. Enter a name for the space.
  - b. Enter a space description (optional).
  - c. Choose a preferred space style and icon.
  - d. Select **Create a new space** using a template choose **None**.
  - e. Click the **Save** button.
8. Use the **Create page** button and create three pages for the space, as shown in Figure 33.

**Figure 33. Add a page to space**



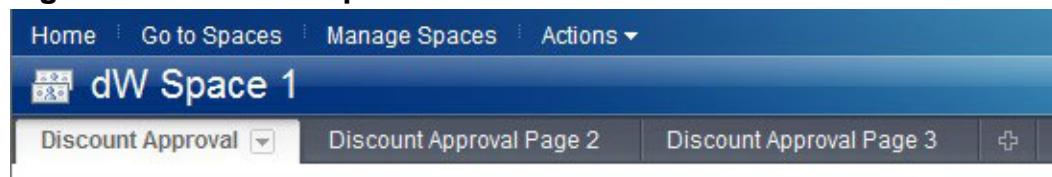
- a. Enter the page name.
- b. Enter a page description.
- c. Select **Create an empty page** as shown in Figure 34.

**Figure 34. Create the Page panel**



9. The space will appear as shown in Figure 35.

**Figure 35. Business Space skeleton**

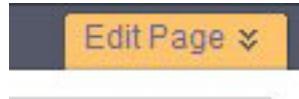


## Customize the Business Space pages

Next, you will edit the pages one-by-one and add necessary widgets to the page and arrange them appropriately. The first page will have generic widgets, the second page will have human task widgets, and the third page will have business rules widgets. To customize each page:

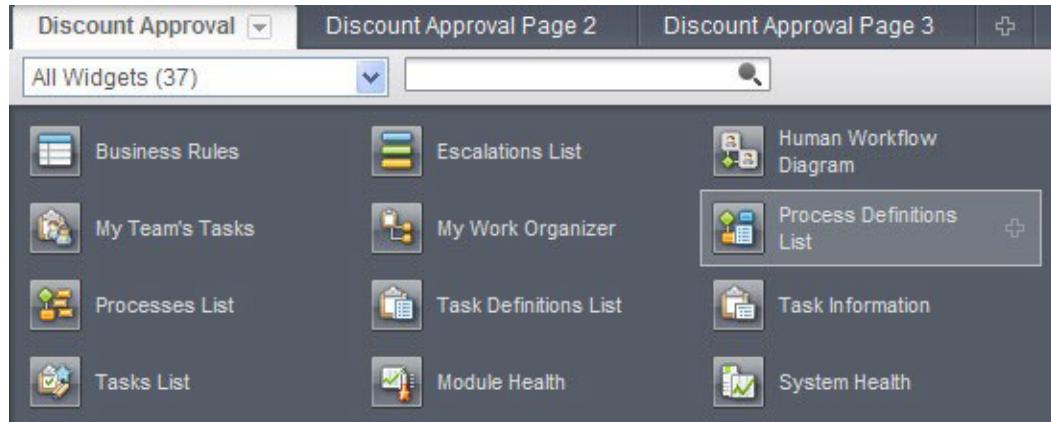
1. Click on the first page.
2. Click **Edit Page** as shown in Figure 36.

**Figure 36. Edit the Page option**



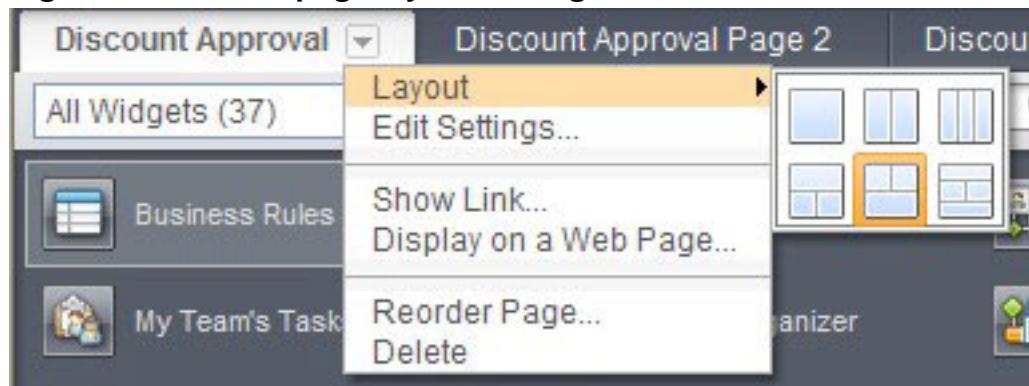
3. The widget panel will be displayed as shown in Figure 37.

**Figure 37. Widget panel**



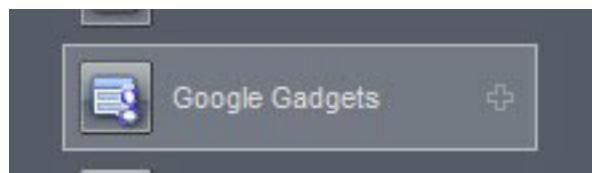
4. Click the drop down menu besides the page title and choose **Layout**. Choose a layout pattern of your choice (Figure 38).

**Figure 38. Edit the page layout settings**



5. After choosing a layout, go to the Widget panel.
6. Click **All Widgets**.
7. Place your mouse on the **Google® Gadgets** widgets as shown in Figure 39, and drag it to one of the frames in the page.

**Figure 39. Google Gadgets widget**



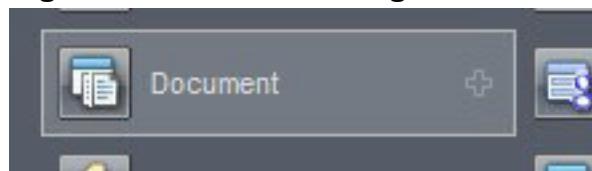
8. Add a calendar widget from Google.
9. Click the drop down menu in the widget title and rename the title to Calendar. You will also have the options to edit the widget settings, size, and borders, as shown in Figure 40.

**Figure 40. Edit page settings for the first page**



10. Return to the widget panel and select the **Document** widget as shown in Figure 41, and drag it to one of the empty frames.

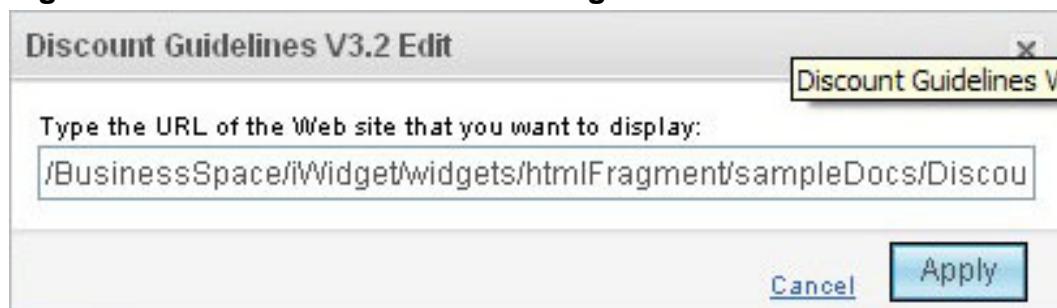
**Figure 41. Document widget**



11. By default, the Business Space will display a sample Word document in the widget. You can override this by editing the widget settings as shown in Figure 42. In the "Type the URL" field, enter:

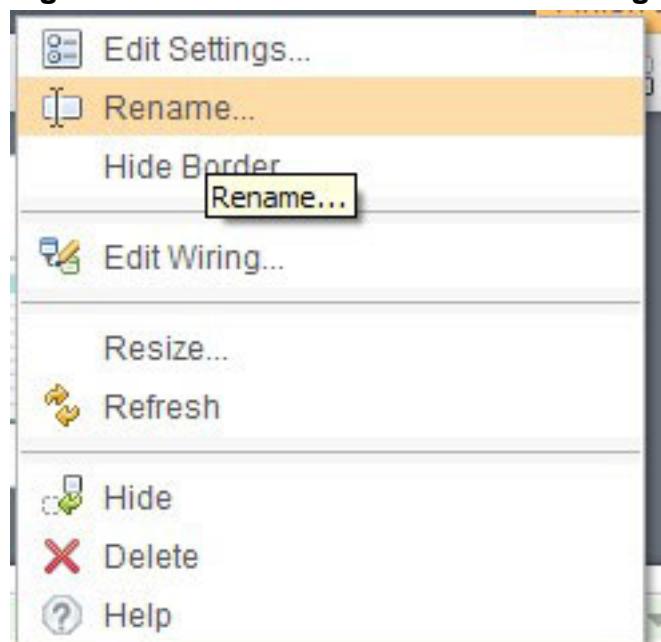
/BusinessSpace/iWidget/widgets/htmlFragment/sampleDocs/DiscountGu

**Figure 42. Enter Document viewer widget URL**



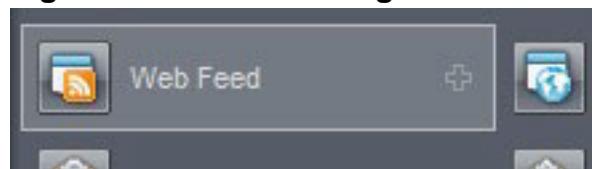
12. You will rename the widget title to **Discount Guidelines V3.2**, assuming that the widgets will display the discount guidelines to the space user for reference while approving the discounted rates manually, and that the document is at Version 3.2. See Figure 43.

**Figure 43. Rename Document viewer widget title**



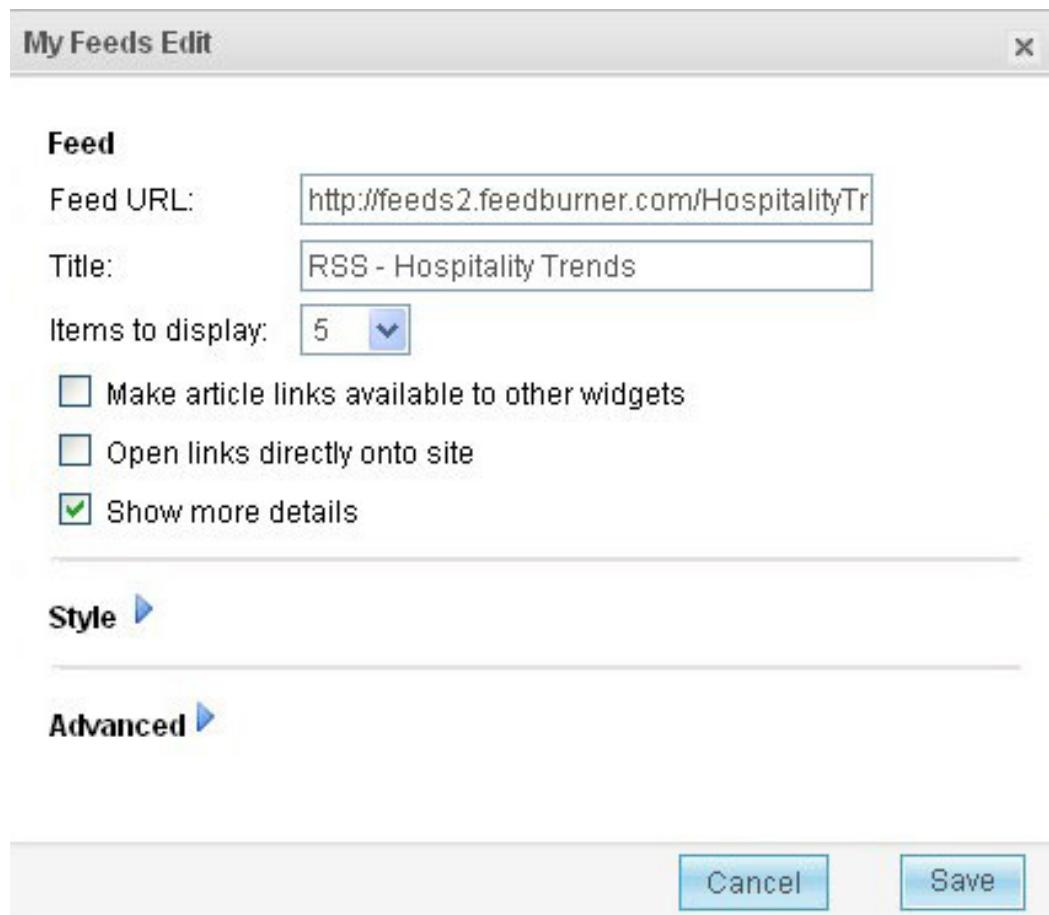
13. To complete the first page, you will add another widget, the **Web Feed** to display a Web feed on Hospitality Trends. As with the other widgets, drag the **Web Feed** widget, as shown in Figure 44, to the page.

**Figure 44. Web feed widget**



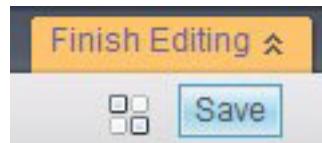
14. Rename it if you wish. Edit the settings to enter the feed URL. For this tutorial, enter <http://feeds2.feedburner.com/HospitalityTrends>. You can also customize the feed display from the settings panel as shown in Figure 45.

**Figure 45. Web feed widget settings**



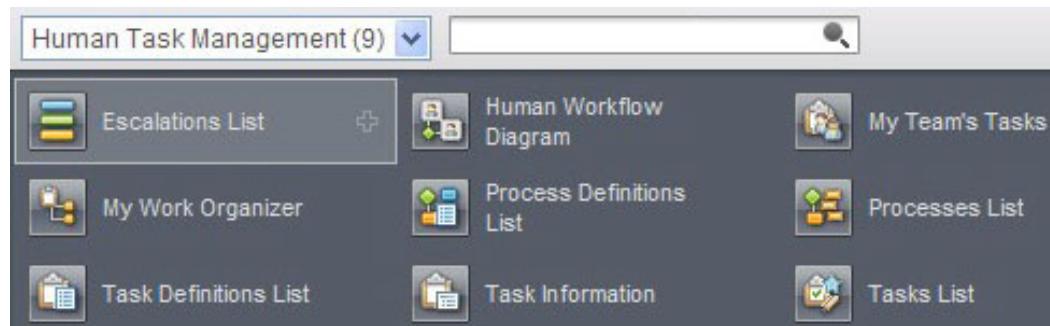
15. Once finished with the customization, click the **Save** button and click **Finish Editing** as shown in Figure 46.

**Figure 46. Finish the page editing option**



16. Edit the second page. As with the previous page, click **Edit Page** so that the widget panel is displayed.
17. You can select **Human Task Management** in the widget panel, as shown in Figure 47, to display only the specific widgets you require for the page.

**Figure 47. Human Task Management widgets**



18. One by one, drag and drop **Task Definitions List**, **Tasks List**, **Task Information**, and **Human Workflow Diagram** widgets to the page.
19. Click the **Save** button and click **Finish Editing**.
20. Edit the third page by following the steps carried out for the previous pages and drag and drop the **Business Rules** widget to the page as shown in Figure 48.

**Figure 48. Business Rules widget**



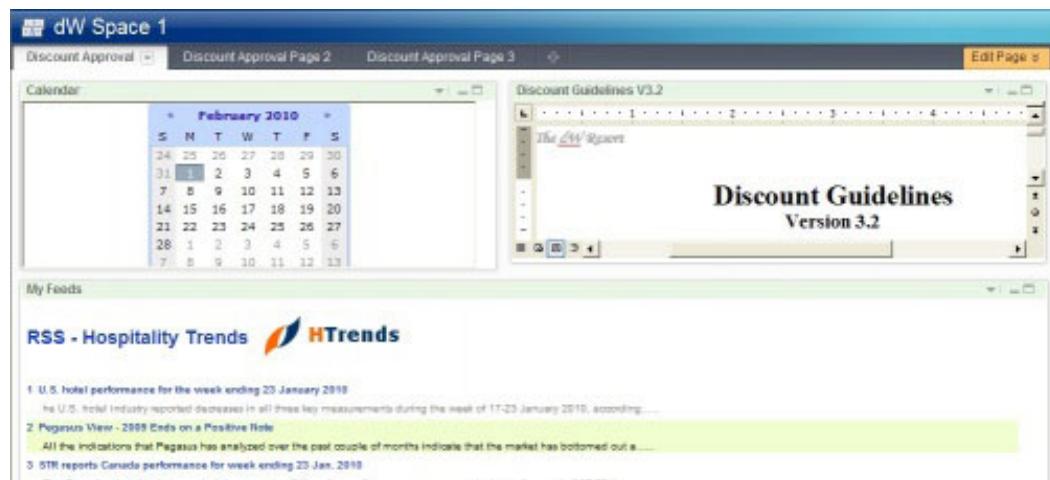
21. You see the discountRule rule displayed.
22. Click the **Save** button and click **Finish Editing**.

## Complete the Business Space creation

You are done with the space creation. Now you will see how to interact with the business process using the custom space created. Before that, you will verify whether the space is rendered properly:

1. Logout from the Business Space console.
2. Log back in to the Business Space and see whether the space renders properly similar to Figure 49.

**Figure 49. Business Space - dW Space 1**



## Section 4. Running the application from Business Space

You will now use the custom space to test the business process application.

### Scenario: Verify the auto approval business rule

In this scenario, you will add a customer who has made more than 20 previous bookings. The business rule logic automatically completes the task by approving discounted rates. To run the scenario:

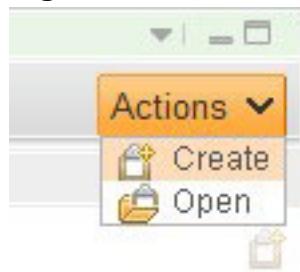
1. Login into the Business Space console.
2. Navigate to the custom space **dW Space 1**.
3. You will be presented the first page where you can see the calendar, the Web feed, and the document widgets.
4. Navigate to the second page in **dW Space 1**.
5. Go to the **Task Definitions List** widget as shown in Figure 50.

**Figure 50. Task Definitions List widget**

Task Definitions List			
All - Create tasks and services ▾			
	Name	Description	Business category
	Approval	... requests your approval	
	Inquiry	... sends the following inquiry: ...	
	Review	... requests your review	
	StartEligibilityCheck	Start dWResort Task	
	To-do	... gives you a to-do: ...	

6. Check **StartEligibilityCheck** and choose **Actions > Create** as shown in Figure 51.

**Figure 51. Create the Task instance**



7. Go to the **Task Information** widget. Here, you will see the input form is displayed as shown in Figure 52.

**Figure 52. Task Information widget displays input form**

**Task Information**

**StartEligibilityCheck**

\* Priority

Due date

**Invoice Details**

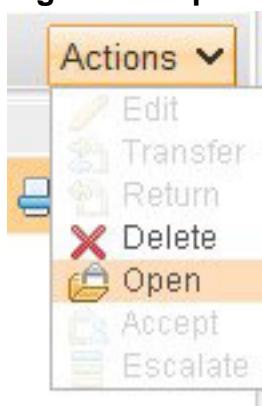
Last Name	<input type="text"/>
First Name	<input type="text"/>
Address	<input type="text"/>
Contact Number	<input type="text"/>
Email ID	<input type="text"/>
Previous Bookings	<input type="text"/>

8. Fill in the form and enter 30 for the “Previous Bookings” field.
9. Click the **Submit** button.
10. Go to the **Task Lists** widget and from the drop down menu, choose **Check status of tasks** as shown in Figure 53.

**Figure 53. Task List widget displays tasks**

Tasks List		
All - Check status of tasks		
<input type="checkbox"/>	Name	Description
<input type="checkbox"/>	StartEligibilityCheck	

11. You will get the details of the StartEligibilityCheck instance that you created previously. Note that the task status is “Completed”.
12. Check the task and click **Actions > Open** as shown in Figure 54.



**Figure 54. Open a task instance**

13. Go to the **Task Information** widget again. This time the output form will be displayed. Note that **Discount Approved** is checked, indicating that the business rule logic has approved the discount as shown in Figure 55.

**Figure 55. Task output form**

**Task Information**

StartEligibilityCheck

**Invoice Details**

Last Name	Doe
First Name	John
Address	IBM, US
Contact Number	123-456-7890
Email ID	johndoe@us.ibm.com
Previous Bookings	25

**Discount Approval Details**

Discount Approved

14. Go back to the **Task Lists** and delete the instance using **Actions > Delete**.

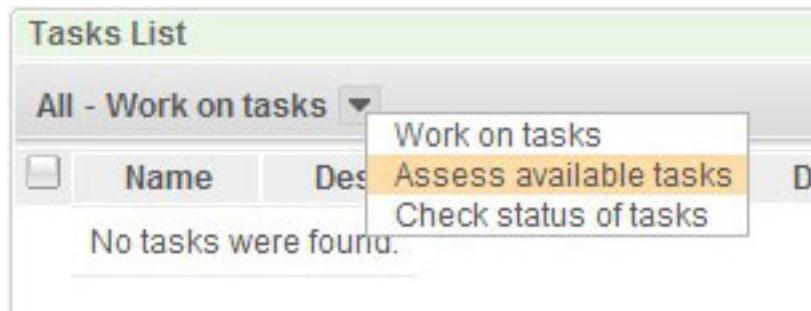
### Scenario: Verify the manual approval human task

In this scenario, you will verify the manual discount approval process using the human task. To run the scenario:

1. Go to the **Task Definitions List** widget.

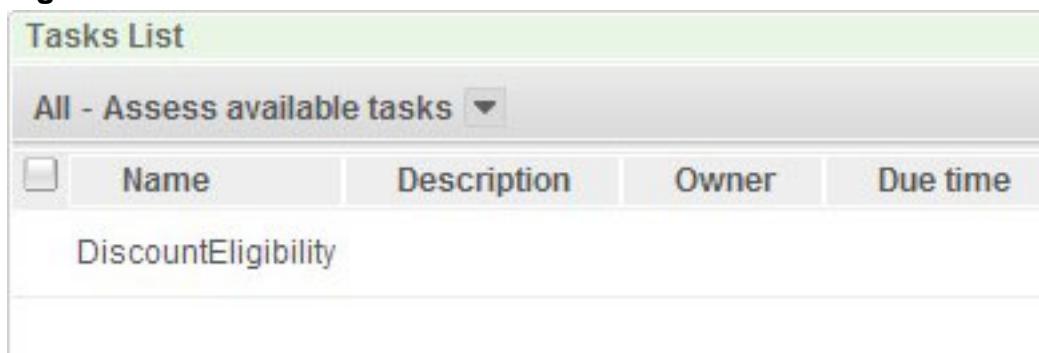
2. Check **StartEligibilityCheck** and choose **Actions > Create**.
3. Go to the **Task Information** widget. Here, you will see that the input form is displayed.
4. Fill in the form and enter 10 for the “Previous Bookings” field.
5. Click the **Submit** button.
6. Go to the **Task Lists** widget and from the drop down menu, choose **Assess available tasks** as shown in Figure 56.

**Figure 56. Assess available tasks**



7. You will notice an entry for the **DiscountEligibility** task in the **Available** status as shown in Figure 57.

**Figure 57. Available tasks list**



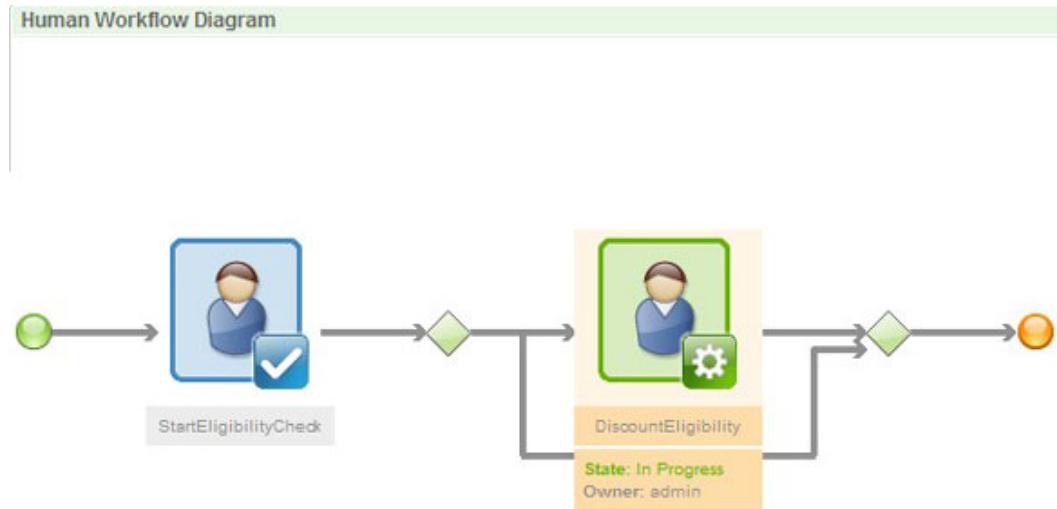
8. Check **DiscountEligibility** and click **Actions > Accept** to work on task instance as shown in Figure 58.

**Figure 58. Accept available tasks**



9. Go to the **Human Workflow Diagram** widget now. You will see the workflow diagram displayed indicating the flow from StartEligibilityCheck to DiscountEligibility human task, as shown in Figure 59. Move the mouse over the tasks to see the status details.

**Figure 59. Human Workflow Diagram widget**



10. Go to the **Task Information** widget. You will see that the task input form is displayed for DiscountEligibility as shown in Figure 60.

**Figure 60. Task input form for manual approval**

## Enter Guest Information:

Last Name:

Doe

First Name:

John

Address:

IBM US

Contact Number:

123-456-7890

Email ID:

johndoe@us.ibm.com

Previous bookings:

10

Click checkbox to approve  
discounted rate: \*

11. Since the previous booking is low, you will disapprove the discounts. Leave the checkbox to approve discounted rates as unchecked.
12. Click the **Submit** button.
13. Go to the **Task Lists** widget and from the drop down menu, choose **Check status of tasks**. You can refer to Figure 56.
14. You will get the details of the StartEligibilityCheck instance that you created. Note that the task status is “Completed”.
15. Open the task to view details using **Actions > Open**.
16. The output form will be displayed in the **Task Information** widget as shown in Figure 61.

**Figure 61. Task output form for manual approval**

**Task Information**

StartEligibilityCheck

Last Name	Doe
First Name	John
Address	IBM US
Contact Number	123-456-7890
Email ID	johndoe@us.ibm.com
Previous Bookings	10

**Discount Approval Details**

Discount Approved

17. Go back to the **Task Lists** and delete the instance using **Actions > Delete**.

## Scenario: Modify the rule logic using Business Space

In this scenario, you will use the Business Rules widget to change the rule logic. You will reduce the previous booking criteria to 15 and allow discounts to all guests who have done previous bookings of more than 15.

1. Navigate to the third page in dW Space 1.

2. You will see the DiscountRule rule displayed inside the Business Rules widget as shown in Figure 62.

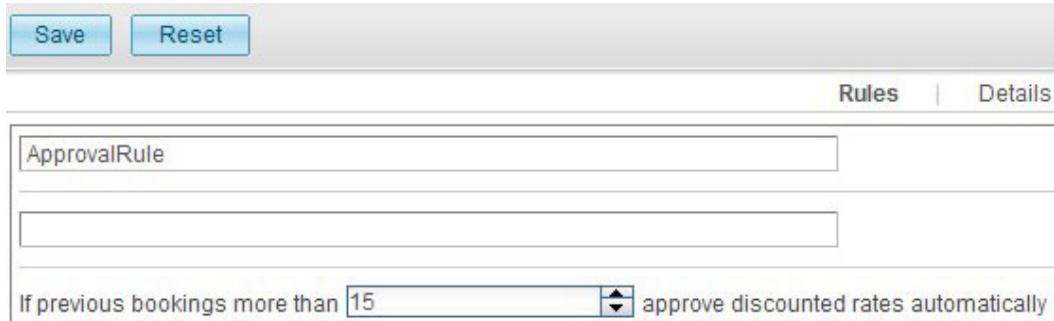
**Figure 62. Business Rule widget showing DiscountRule**



The screenshot shows a 'Business Rules' interface. At the top, a dropdown menu is set to 'All Rules'. Below it, a list item 'AutoDiscountApproval' is expanded, showing a sub-item 'discountRule'. A green play icon next to 'discountRule' indicates it is 'Currently Active'. To the right of 'discountRule' is a pencil icon for editing. At the bottom of the list, there are buttons for 'Per page:' and a page number '1 - 1'.

3. Click **DiscountRule** to open up the rule editor.
4. Place the mouse over the variable and left click to edit the value.
5. Enter 15 and click outside the variable field as shown in Figure 63.

**Figure 63. Edit Business DiscountRule**



The screenshot shows an 'Edit Business DiscountRule' dialog. At the top, there are 'Save' and 'Reset' buttons. Below them is a navigation bar with 'Rules' and 'Details' tabs, with 'Rules' selected. The main area contains a text input field with 'ApprovalRule' and a large empty text area below it. At the bottom, there is a configuration section with a dropdown menu set to '15' and the text 'If previous bookings more than 15 approve discounted rates automatically'.

6. Click the **Save** button to save the changes.
7. You can verify the rule logic again by carrying out the [first scenario](#) of this section.

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## Section 5. Conclusion

In this tutorial, you have seen how Business Space powered by WebSphere is a powerful and rich user interface for business process applications. Business Space also provides a unified frontend enabling collaboration between the various Business Process Management products. Business Spaces are further enhanced with custom themes and custom widgets, which provide business users with a customizable space suiting their needs.

## Downloads

Description	Name	Size	Download method
Code sample	dWResortVer1.zip	29KB	<a href="#">HTTP</a>

[Information about download methods](#)

## Resources

- [Business Space V7 Information Center](#)
- [IBM Redbook: Building Solutions with Business Space powered by WebSphere V7](#)
- [WebSphere Process Server product support](#)
- [WebSphere Process Server discussion forum](#)

## About the author

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**Rajiv Madassery** works as a Principal Software Engineer for the WebSphere Process Server Level 2 Support Team at the India Software Lab (ISL). Rajiv joined IBM in 2003 and has worked with the WebSphere Business Integration Adapters Functional Verification Test and WebSphere Application Server Level 2 Support teams.